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## ABSTRACT

This study examines the development of emotion in 108 children from a small Northern California city aged 6-7, 8-9, and 10-11 years. The paper specifically examines: (1) children's beliefs about emotion management that contribute to their preinteraction expectancies; (2) the sorts of socializing messages children appear to be responding to; and (3) the kinds of cognitive representations that are available to children as they construct their naive theory of emotion. The children were individually asked a series of standardized questions about the parental reactions likely to occur when a child protagonist revealed his or her genuine emotion in eight hypothetical vignettes, and about what one could do to avoid or promote those parental reactions. Half the vignettes concerned someone who was at risk for having their feelings hurt by the protagonist's expression of genuine emotion; the other half were about a child protagonist who became vulnerable by displaying genuine emotion. The findings indicate that there were generally no age differences in children's expectations of how controlling or accepting a parent's reaction would be in both vignettes. Children selected relatively more controlling parental reactions when the protagonist's display of emotion could result in another person's becoming vulnerable or getting his or her feelings hurt. (RJC)

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Cognitive Capabilities Involved in the Socialization of Emotion:  
Development in Middle Childhood

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COGNITIVE CAPABILITIES INVOLVED IN THE SOCIALIZATION OF EMOTION:  
DEVELOPMENT IN MIDDLE CHILDHOOD

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My focus for some years now has been on children's understanding of how emotional-expressive behavior is used in interpersonal transactions. I will argue that children begin in middle childhood to reason systematically about social exchange from the standpoint of mutual influence, using emotional-expressive behavior as a source of particularly salient overt cues. Integrated with their attribution of meaning to the emotional-expressive cues are cognitive capabilities that I shall briefly consider. I also think that children's understanding of mutual influence is pivotal to the socialization of emotion, particularly so in middle childhood and preadolescence.

Allow me to elaborate what I mean by the notion of mutual influence. By middle childhood we find that children are well aware that others take into account one's emotional expressive behavior as social information. What I wanted to explore further was how children think such emotional-expressive behavior will affect their subsequent interaction and what options exist, for example, for averting negative outcomes or for promoting positive ones. In other words, in an on-going social transaction, a "dove-tailing" of both persons' emotional-expressive behavior occurs that regulates both emotion processes and relationship dynamics.

Social psychologists have examined this mutual expectation of influence in the relationship process; they have referred to two main types of expectancies that appear to guide this mutual influence: (a) reciprocity and (b) compensation (Ickes, Patterson, Rajecki, & Tanford, 1982). Reciprocity refers to similar expectancies about one another on the part of two people such that they display parallel interactive behaviors (e.g., approach-approach or avoidance-avoidance). Compensation refers to more complex anticipations of behavior, namely, one has preinteraction expectancies that suggest that the anticipated interaction will be negative for oneself, but one tries to modify one's behavior in such a manner so as to deflect in advance potential negative outcomes. An example would be smiling at a dominant person whose opinion of oneself one suspects may not be particularly favorable, yet one hopes that one's expressive gesture ameliorates negative feelings held toward oneself that might otherwise contribute to one's subsequent disadvantage. In other words, the "disarming smile" is premised on fairly subtle perspective-taking and expectancy manipulation.

Children appear to be making use of these two broad sorts of expectancies when they respond to interviews about the "dove-tailing" of emotional-expressive behavior in specific instances of social transaction. In order for them to do so, they must also be drawing upon a set of inter-related cognitive strategies that include the following representational skills: (a) appearance-reality distinction, (b) intentionality, (c) causal reasoning, (d) perspective-taking, and (e) recursive thinking.

While researchers in social cognition have long worked with these capabilities, my intent is to apply them to the socialization of emotion such that the case can be made that children themselves are the active "co-creators" of their beliefs about emotion in interpersonal contexts. If children are capable of these sorts of representational skills, then they also become capable of comprehending more complex social messages about how to manage emotional states and emotional-expressive behavior. It is in this sense that they become co-creators of their own beliefs about emotion experienced in social transactions.

I contend that such beliefs about emotion constitute naive theories of emotion (see Weiner, Folkes, Amirkhan, & Virette, 1987). A naive theory of emotion simply refers to the lay person's hypotheses (or assumptions) about how emotion works or functions. Lutz, an anthropologist, calls naive theories of emotion ethnotheories of emotion, and she defines them as "a fundamental ... aspect of psychosocial functioning... used to explain why, when, and how emotion occurs, and [ethnotheories of emotion are] embedded in more general theories of the person, internal processes, and social life" (1987, p. 291). If I may borrow a phrase from attachment research, a naive theory of emotion may be thought of as the "internal working model" used by an individual to make sense of emotion, particularly emotions experienced in interpersonal contexts. Thus, it is the naive or implicit theory of emotion held by an individual that becomes the target of inquiry when investigating how emotion is represented in age groups beyond early childhood. When one then adds to this

inquiry, how do such representations develop, we must then consider questions regarding the socialization of emotion, namely, what messages about emotion management are children assimilating. I am led to conclude that if one intends to conduct good developmental research on emotion, then the social context must be conceptually viewed as inseparable from emotional experience.

I will consider next a recent interview-based study with school-age children that will illustrate (a) their beliefs about emotion management that contribute to their preinteraction expectancies, (b) the sorts of socializing messages they appear to be responding to, and (c) the kinds of cognitive representations that are available to them as they construct their naive theory of emotion.

#### METHOD

Sample. The participants were 108 children in three age groups: 6-7 years, 8-9 years, and 10-11 years, relatively evenly distributed across gender and age groups. Socio-economic status ranged from lower- to upper-middle class; no children with special educational needs were included. All were residents of a Northern California small city and attended public school.

Stimulus materials. The children were individually asked a series of standardized questions about the parental reactions likely to occur when a child protagonist reveals his/her genuine emotion in a hypothetical vignette and what one could do to avoid or promote those parental reactions. We used 8 vignettes, which consisted of a verbal narrative and accompanying cartoon

pictures; they were presented in a random order for each child. Boys heard stories about sons with half having mothers present in the vignettes and half with fathers involved. Girls heard stories about daughters with again half involving mothers and the other half fathers.

These 8 vignettes were of two sorts: (1) 4 of them were about someone else at risk for having their feelings hurt by the protagonist expressing her or his real emotion (e.g., a child expresses disgust at Grandma's strange-looking casserole; these 4 are hereafter called the "vulnerable-other" stories), and (2) the remaining 4 vignettes were about the child protagonist her- or himself becoming vulnerable by displaying genuine emotion (e.g., a child cries after being threatened by a bully, hereafter called "vulnerable-child" stories). Table 1 contains a description of the themes of the 8 vignettes.

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 Insert Table 1 here  
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Interview. The children were individually interviewed and asked how the parent would react to the genuine display of emotion and how the child protagonist would subsequently feel about the parental response. For those children who thought the protagonist was unhappy about the parent reaction, a question was posed about what the protagonist could do differently to avoid such a negative outcome vis a vis their parent. All children were asked last what they themselves would do if they were personally in a similar situation.

## RESULTS

Initially I evaluated the data as discrete categories by using chi-square analyses, but I recently recoded a number of the categories into dimensions that allowed me to convert children's responses into continuous data (omitting "don't know" and tangential responses) and use parametric analyses (see Rosenthal & Rosnow, 1985). The 4 dependent measures yielded by this conversion are as follows: (a) parent reaction (degree of control), (b) degree of parental support of the child, (c) degree of positivity in child's feeling in light of parent support (or lack thereof), and (d) likelihood of expected expression management if oneself were in the situation. The independent variables were age group by child sex by parent sex -- or a  $3 \times 2 \times 2$  design. Each of the 8 vignettes was analyzed separately.

The influence of target vulnerability. The most robust finding was that with but one exception, there were no age differences in children's expectations of how controlling or how accepting a parent's reaction would be in the two vulnerability conditions. Across age groups children generally selected relatively more controlling or restrictive parental reactions when the protagonist's display of genuine emotion would be likely to result in another person's becoming vulnerable or getting their feelings hurt (an average of 77% of the children anticipated controlling parental reactions across the 4 "vulnerable-other" vignettes). Only for the story about receiving an undesirable gift was there a significant age effect ( $F(2,96) = 6.84, p < .002$ ): The youngest children were more likely



to expect some degree of parental acceptance than were the two older age groups.

More accepting and supportive parental reactions were generally expected in the "vulnerable-child" vignettes (an average of 69% of the children anticipated accepting parental reactions across the 4 "vulnerable-child" vignettes). There were no significant age effects. Thus, in terms of what children have learned about emotion management, they generally expect negative consequences for showing genuine feelings if doing so may contribute to another person feeling hurt. For oneself becoming vulnerable by expressing one's genuine emotions, the responses indicated that generally children believe that with parents one need not manage one's emotional display very much as the consequences are usually benign.

"Vulnerable-child" vignettes. In examining the 4 dependent variables derived from the children's interviews, age was a significant predictor for several outcomes in these "vulnerable-child" stories (getting an injection, making a mistake during a solo, losing one's pet bird through an open window, and being bullied). Relative to the youngest and oldest children, third graders reported that the child in the story felt significantly worse in the solo performance story ( $F(2,96) = 4.55, p < .01$ ), and in contrast to the youngest children, the two older groups of children both thought the protagonist would feel worse in the lost bird story ( $F(2,96) = 6.14, p < .003$ ). Older children also reported that parents were perceived as significantly less supportive toward the protagonist in these two vignettes,

contributing to the older child's expectation that the protagonist would experience greater negative affect as a result.

Parent sex was a significant factor by itself only in the solo performance story: fathers were thought to be more accepting of the protagonist's display of distress, particularly of daughters ( $p < .09$ ). Parent sex did significantly interact with child sex such that fathers were perceived as more supportive toward girls whereas mothers were perceived as more supportive of sons, especially by the youngest boys, in the bully ( $p < .02$ ) and lost bird ( $p < .03$ ) stories.

For those children who gave a decidedly harsh parental response to this display of vulnerability-inducing genuine emotion (and they were a distinct minority, ranging across the 4 stories from 18 - 38% with an average of 26%), they were asked what could the story character do differently to avoid the parental lack of support in the vulnerability-inducing situation. All children were also asked what would they have done themselves in a similar situation. The pattern of significant age effects from these two questions was that, in general, older children were more likely to suggest changing the situation (e.g., shut the window so that the pet bird could not fly out), while younger children more often selected changing their expressive behavior. Thus, the belief espoused by younger children appeared to be, "don't show you feel upset," whereas older children seem to be prescribing prevention, "don't get into the vulnerable situation in the first place." Only the injection story elicited no significant age effects, although there was a steady increase

with age in children reporting that they would control their expressive behavior in this situation (over whose occurrence they have little control).

Only one significant child sex difference emerged, which was for the solo story, and has interesting implications for public performance. In response to the question about what would they do themselves in the story about making a mistake in a solo gymnastics performance, girls were more likely than boys, across age groups, to suggest changing how one looks; boys were more likely to contend that what they would do is to change how they feel.

Reciprocity expectancies. I do want to emphasize, however, that overall, children across age groups and gender expected more parental support and acceptance in these "vulnerable child" stories than in the "vulnerable-other" stories, and they felt better (i.e., less vulnerable) upon receiving that parent support. It is in this general pattern that the reciprocity expectancy shows itself: "if I feel vulnerable, but you respond comfortingly, then I'll feel better." Thus, a parent's acceptance of a child's genuine emotional display leads to a reciprocally positive response by the child.

Cognitive skills. In terms of the cognitive skills used in children's expectations in these "vulnerable-child" vignettes, I shall quote several children's comments and the questions they were responding to. In parentheses are examples of the kinds of cognitive capabilities demonstrated by the child's response.

Ques.: How does the child now feel (posed after eliciting the parent reaction to a boy expressing distress after he made a mistake during a solo gymnastics performance)?

6th grade boy: "He feels happy that his mom told him not to worry so he can go on and forget it." (Recursive thinking, perspective-taking.)

Ques.: What would you do yourself if this situation were to happen to you?

(Same boy): "I would kind of show how I feel and not show how I feel. I wouldn't feel really embarrassed because even professionals make mistakes." (Perspective-taking, causal thinking, appearance-reality distinction.)

Ques.: What would you do yourself if this situation were to happen to you? (In reference to the lost pet bird vignette.)

1st grade girl: "I'd feel sad because I like birds, and if my father told me not to get so upset, I'd feel real mad at him." (Causal thinking, perspective-taking.)

Ques.: How does the child now feel (posed after eliciting the parent reaction to the child's distress upon getting an injection)?

3rd grade girl: She'd feel happy that her father cares for her a lot." (Recursive thinking, perspective-taking.)

We see here examples of perspective-taking, causality, recursive thinking, and, more significantly, examples of reciprocity expectancies: How the parent responds emotionally (positively or negatively) is taken into account by the child, who reciprocates also in either a parallel negative way (e.g.,

'if father got upset at me, I'd get mad at him') or in a parallel positive way (e.g., the child feels happy because father cares for her.)

"Vulnerable-other" vignettes. In examining compensatory expectancies for how children anticipate the possible pattern of mutual influence between parent and child, the stories involving a "vulnerable-other" are a good source for illustration. In terms of statistical results, as mentioned above, what we found in terms of age effects was that in general children expect controlling reactions from their parents when they express genuine feelings that might contribute to someone else feeling badly, with the one exception being the youngest children believing there will be greater parental acceptance or tolerance of the genuine emotional display of irritation at being given an undesirable gift.

Sex differences appeared in several ways, but not in all stories. Girls expected significantly more parental acceptance of genuine emotion in the unwanted gift and funeral stories ( $F(1,96) = 6.84, p < .01$  and  $F(1,96) = 4.54, p < .04$ , respectively). They also anticipated that fathers would be significantly more accepting of daughters' giggling during a funeral and more supportive of them when staring at an accident victim. What is important to note here is the contextualization of these sex differences patterns: they did not occur across all vignettes, but the cross-sex perception of acceptance or support of genuine emotion does echo the similar findings for a couple of the "vulnerable-child" stories.

When asked what would they do themselves if they were in the situations reflected in the 4 "vulnerable-other" stories, significant age effects occurred for the funeral and disgusting food situations. For the disgusting food situation the oldest children were twice as likely to endorse changing one's expression rather than changing the situation (e.g., "eat it without making a fuss about it" versus "you could feed it to the dog under the table"). For the giggling-at-a-funeral story, the significant age effect was due to a disproportionate group of third-graders (particularly boys), who were more likely to insist that they would always feel sad in a funeral, thus behaving according to how they felt, and therefore situational and expressive strategies were less often mentioned as relevant for coping with not-sad feelings during a funeral ceremony.

Cognitive skills. I shall quote again several children's responses to assorted interview questions as a way to illustrate the sort of sophisticated cognitive skills used by the children. Their thinking also demonstrates how they attempt to respond to anticipated problematic interactions and produce compensatory expectancies. I have italicized those comments that suggest compensatory strategies.

Ques.: How did the mother feel toward the boy when she reacted that way? (In reference to the giggling displayed at a funeral.)

6th grade boy: "She felt angry, but *didn't really want to let it out, because the people might get more upset* around them." (Recursive thinking, perspective-taking, causal reasoning, appearance-reality distinction, intentionality.)

Ques.: How does the boy now feel? (Posed after eliciting the preceding response.)

(Same boy): "He felt ashamed because he did something wrong."  
(Causal thinking, perspective-taking.)

Ques.: What could he do differently so that his mother wouldn't feel that way about him? (Posed after eliciting the preceding response.)

(Same boy): "He could *hold in the giggle* and laugh inside himself." (Perspective-taking, appearance-reality distinction, implicit recursive thinking: 'so that she would not get angry at him'.)

Ques.: What would you do yourself if this situation were to happen to you?

(Same boy): "I'd walk over away from Mom, like walk over to a tree, *turn away, and then giggle* if I really had to." (Perspective-taking, implicit recursive thinking.)

Ques.: How did the mother feel when she reacted that way to the girl? (In reference to the story about staring intently at an accident victim.)

6th grade girl: "She'd be kind of upset because she [the daughter] is staring at the man who can't help it [how he looks]." (Causal reasoning, perspective-taking.)

Ques.: How does the girl now feel?

(Same girl): "She's feeling embarrassed that she was staring; she felt sad for the man." (Recursive thinking, perspective-taking.)

Ques.: What could the girl do differently so that her mother wouldn't feel that way about her?

(Same girl): "She *could not stare, stay normal-looking; just glance once, so the victim wouldn't be ashamed.*" (Perspective-taking, causal reasoning, appearance-reality distinction, recursive thinking.)

Ques.: What would you do yourself if this situation were to happen to you?

(Same girl): "I'd feel ashamed if I was staring at a poor man. Next time I'd *try hard not to stare*, even if I wanted to."

(Perspective-taking, implied appearance-reality distinction, intentionality.)

Ques.: How did the mother feel when she reacted that way to the boy? (In reference to the boy expressing disgust at Grandmother's strange-looking casserole.)

1st grade boy: "She was mad at him, and she didn't want to cook something else just for him." (Perspective-taking.)

Ques.: How does the boy now feel?

(Same 1st grade boy): "He's mad at his mom." (Perspective-taking. Note: Reciprocity, rather than compensation, is evident here in this relatively young child's thinking: He reciprocates anger for anger.)

Ques.: What could the boy do differently so that his mother wouldn't feel that way about him?

(Same boy): "*Don't say 'yech' at Grandma's food.*" (Implicit causal reasoning.)

Ques.: What would you do yourself if this situation were to happen to you?



(Same boy): "I would act *alright* and say, 'Please don't cook that again.'" (Perspective-taking, possible appearance-reality distinction.)

I deliberately took two children from the oldest age group and one from the youngest as the older children's responses appeared more suggestive of the kinds of cognitive capabilities needed in children's thinking for them to be able to conceptualize compensatory strategies. Recursive thinking is especially important for being able to anticipate another's reaction, particularly an internal state reaction, to one's own response. To be able to consider compensatory strategies, children need to be able to view social exchanges as interactional systems that are also subject to temporal sequences: who did what first and what is likely to happen next if one does not intervene strategically.

#### DISCUSSION AND CONCLUSION

The data presented here are descriptive and hopefully also persuasive in supporting my view that children participate in their own socialization of emotion management. Children "co-create" their beliefs and expectations about emotion by developing cognitive capabilities that permit them both to comprehend more complex messages from others about emotion and, more importantly, to view social interaction from a systems perspective that emphasizes mutual influence. It is the mutual influence of one another's emotional states and expressive behaviors in interpersonal contexts that is of central importance here, for it is that dynamic process that, when combined with

emerging cognitive skills, facilitates the child's development of an implicit theory of emotion that is sufficiently complex for her or him to function in an emotionally competent fashion. As I have argued elsewhere, emotional competence is inseparably linked with social self-efficacy (Saarni, 1989). To the degree that one's naive or implicit theory of emotion is differentiated, then similarly one's emotional transactions with others can be skillfully and sensitively negotiated.

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TABLE 1  
Story Themes

Note: All eight stories feature a parent present. In the accompanying stick-figure cartoons, the parent's facial expression has been left blank, and other people present have either neutral expressions or expressions appropriate to the occasion (e.g., sad expressions at a funeral). The child-protagonist's facial expression is clearly displayed and the narrative states explicitly how the child felt.

"Vulnerable-Other" Vignettes

1. Gift: Child-protagonist displays an irritated frown upon receiving used records as a birthday gift from her/his grandfather.
2. Victim: Child-protagonist stares with curiosity at an accident victim; her/his facial expression shows a slight smile and wide-open eyes directed toward the accident victim.
3. Casserole: Child-protagonist says "yech" and looks disgusted upon being offered some of Grandmother's peculiar-looking casserole.
4. Funeral: Child-protagonist giggles with a smiling face while attending a funeral procession.

"Vulnerable-Child" Vignettes

1. Bully: Child-protagonist arrives at the front door of her/his home looking very upset and fearful. S/he reports to the parent that a bully has been threatening her/him.
2. Injection: Child-protagonist displays distress as s/he is about to receive an injection from a doctor.
3. Solo: Child-protagonist displays distress upon making a mistake in a solo gymnastics performance. The parent is part of the audience.
4. Bird: Child-protagonist looks sad as parent encounters her/him just after her/his pet bird has escaped through an open window.

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## ABSTRACT

This study was designed to investigate aspects of childhood social functioning in early interaction and socialization patterns of normal families. Sixteen families with a child between 1 and 3 years of age, and a second child born when the study began, were observed over a 2-year period. Intelligence tests were administered to both children when the second child was 5 and 7 years old. Verbal intelligence scores were taken as an estimate of the quality of social skills and adaptation at preschool age. Videotaped interactions were divided into about 1100 episodes for each family, and were coded according to categories of formal interactional and content-related aspects of family socialization. Three items of data were selected for detailed presentation: "situation control," "transmission of rules," and "affirmation of position." Findings indicated that: (1) time-specific changes in dyadic socialization patterns occur after the arrival of a new child and expand over a 2-year period; (2) socialization activities within families vary according to intensity and time-specificity; and (3) families vary according to mothers' and fathers' coordination and cooperation in socialization activities. Discussion considers conceptual and methodological implications for the detection and isolation of family-specific precursors of pathological personality development. (RH)

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A LONGITUDINAL STUDY OF CHANGES IN SOCIALIZATION  
AND INTERACTION PATTERNS IN FAMILIES

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## Summary

Early interaction and socialization patterns in normal families are investigated to find specifics of childhood social functioning. The whole families' contribution to early childhood socialization, and time specific patterns of early socialization practice within the family are considered. 16 families with a child between one and three years old and a second child born at the beginning of the study were observed over a two year period. Intelligence tests were administered to both children when the second child was five and seven. Verbal intelligence scores were taken as an estimate of the quality of the child's social skills and social adaptation at preschool age.

Videotaped family interactions were divided into episodes, and coded according to categories of formal interactional as well as content-related family socialization aspects. Log-linear analyses were conducted for all items separately. Three items were selected which showed significant differences in the quality of children's later verbal ability: "situation control", "transmission of rules", and "affirmation of position." Binomial tests comparing these items revealed group specific differences. An additional prospective analysis revealed significant correlations between single families' degree of diverging or converging socialization practices and children's verbal IQ scores. Discussion will consider both conceptual and methodological implications for the detection and isolation of family-specific precursors of pathological personality development.

## Introduction

Socialization patterns occur in various social contexts of the child, such as the family, the neighborhood, and the school, and are preferred targets of many longitudinal studies in developmental psychology focusing on social development. Details of these contexts are deemed prerequisite for analyzing fluctuations in the course of individual developmental trajectories. During the life-span, contexts may differ according to their relevance for individual development; the social context of the family, however, is believed to be the most influential proximal context for infants, children and perhaps early adolescents and plays a major role for social development.

This contribution does not focus on a pathological sample, it focuses on a normal sample of families having infants. Results will be presented that illustrate changes in socialization practices during a two year period after a new child's arrival. The analysis of "normal" samples may have advantages for further analyses of pathological samples: First, only few studies are available in clinical psychology that have investigated shifts in socialization practices and adaptation processes in normal families; and second, in most studies, materials documenting everyday family socialization patterns during early development are not available.

Adaptation processes in families. In this contribution, the focus is on normal interaction formats that might be relevant for a well-functioning adaptation process during a period of dramatic changes inside the family, that is, early childhood. The study of socialization in "well-functioning" or non-pathological contexts may provide us with guidelines for a better



understanding of "non-normal" socialization patterns and their detrimental impact on the course of social development leading to malfunctioning in individuals.

The comparison of groups with and without symptoms indicative of malfunctioning such as depression, regression, or conflictual and distant relationships is one possible avenue to find keys that help unlock the secrets of the genesis of maladaptation; such comparisons provide the opportunity for the reconstruction of socialization patterns possibly associated with functioning or malfunctioning. In most research, however, real behaviors in earlier stages of development have to be reconstructed by subjects at a later stage through the help of questionnaires, retrospective interviews or medical reports of symptoms. In most cases, documents are not available that could bring to life the subjects' social context during their early development.

Systematic shifts in socialization patterns over time are valuable witnesses of developmental conditions that may unfold their impact immediately afterwards, that is, during the same or the next developmental step, or after a longer period of time at a later stage of individual development. Thus, the availability of data describing socialization practices in families during early childhood might be of use to understand later formats of individual development. Socialization patterns mirror general as well as specific modes of communication inside the family, they are predetermined by cultural expectations and may generate, even in very intimate mother-child exchanges, rather preestablished forms of interaction. In addition, socialization patterns are also influenced by the individual temperaments of the exchange partners within the family.

Developmental challenges within the family. Socialization patterns occur in

relationships. Children's basic relational context is the family with its various dyadic and triadic constellations such as mother-child, father-child, or sibling-sibling dyad, or father-mother-child triad etc. The relational context of the family is not a static structure but a network that changes continuously over time. The family as a group consists of different individuals who are in different stages of their own developmental course. The family, as it runs through different stages, has to adapt to varying conditions and to cope with a number of normative crises: It has to accomplish, similar to the developing individual, a series of family developmental tasks (Rodgers, 1973, Duvall, 1977, Aldous, 1978, Olson & McCubbin, 1983).

For example, one of the most crucial tasks of an expanding family, when a child is born, is to find a new balance and to integrate the new family member. For the other members, this implies a process of new orientation and even perhaps reorganization of their extant relationships. To give an example of a concrete challenge, after the arrival of a second child, the first child has to find a new position and to rearrange his or her relationships with the parents. After the basic integration process, however, it is the new child who, after he or she became a full-fledged family member, has to gain a position of his or her own and to contribute to the family's format of interacting. Moreover, as children during their early rapid development are in very sensitive stages concerning social experiences, parents are required to react with an appropriate flexibility to their children's changing needs. The beginning of growing mutual understanding and continuous adaptive transition that normally occurs within families, can also be the onset of growing mismatch and maladaptation among family members. As the family apparently is the arena for the children's major interactional experiences, we can assume that the family contributes

substantially to the inner representation of relationships in the individual child, who piles up social "knowledge" or an "internal working model" (Bowlby, 1969; Main, Kaplan, Cassidy, 1985) that is activated whenever new relationships are to be established or social behavior is to be performed (Sroufe & Fleeson, 1986, 1988).

Parallels for sensitive periods with regard to adaptive and maladaptive parenting behavior during later stages of individual development can be found, for example, during early adolescence, where parents time and again have to change their socialization standards to adapt to major shifts in their children who, during this period, need more space and support for exploring, questioning, and testing extant relationships and communication patterns. These transitional challenges are likely to create a number of crises that are manifest in "mundane" conflicts among family members, that is, in everyday quarrels about trivial topics (Hill, 1980; Steinberg & Silverberg, 1987; Hill & Holmbeck, 1987; Kidwell, Fischer, Dunham, & Baranowski, 1983; Gjerde, 1986).

Selected results are presented here that are part of a longitudinal and observational study (Kreppner, Paulsen, Schuetze, 1982, Kreppner, 1989), in which family interaction and socialization was registered (by means of videotape) over the first two years after the birth of a new member, the second child. The presentation centers on two topics: First, the analysis of a general shift in selected socialization items indicative of handling stress and conflict in dyads within the family, and, second, the illustration of variations among family subgroups. Deviations from a general socialization trajectory in early development are considered to be interesting candidates for creating information about the possible onset of a potential maladaptive processes leading to patterns of misunderstanding and mismatch in family interaction.

## Design and Results

Design. 16 families were observed for a two year period after the arrival of a second child. In addition, the parents' SES (years of education, status of profession, grandparents' professional status) was assessed and the second children's IQ measured at age 5 and 7. The two year period of intense family observation was partitioned into seven segments covering about four months each, centering around 4/6 weeks, 4/5 months, 8/9 months, 12/13 months, 16/17 months, 20/21 months, and 23/24 months after the second child's birth. Observations were conducted in the families' homes in unstructured natural everyday situations with one or both parents present dealing with one or both children. The families were videotaped for about one half to one hour during each visit, and from each of the seven segments two half hour videotapes were selected for further analysis. Thus, for each family, seven hours of videotaped interaction was obtained. The videotaped observations were partitioned into episodes lasting 20 - 40 seconds each, yielding about 1100 episodes for each family. All episodes were scored according to a number of categories describing formal and content-specific aspects of family interaction and socialization. For example, every episode an initiator and a target are defined indicative for the dynamics in dyads or triads. Moreover in every episode a specific socialization practice can be scored. Thus, the combination of these two aspects provides a rich picture of socialization practices in different dyads. Time-specific analyses of these combinations bring additional information about changes of socialization in particular dyads. Details of all categories and classifications used in the study are described elsewhere (Kreppner, 1984; Kreppner, 1989; Von Eye & Kreppner, 1989). The obtained corpus of data allows a meticulous analysis of time-specific

and dyad-specific family socialization activities: For example, an analysis of frequencies cross-classified according to selected aspects such as family dynamics (various initiative - target dyads) by socialization activities (situation control, affirmation, transmission of rules, etc.) by the seven age periods, may provide us with precise information about general trends (baselines) of interaction and socialization changes as well as variations among families (deviations from baselines).

From the corpus of data, three items that describe socialization practices within the family are presented in detail here. The items "situation control", "transmission of rules", and "affirmation of position" indicate aspects of conflict management and negotiation in socialization. They have been selected after an overall and explorative log-linear analysis including all socialization items used in the category system - both structural and pragmatic aspects (see Kreppner, 1984) - yielded models showing a strong main effect for family differences for these three items. Therefore, these items seemed good candidates for demonstrating the two different aspects of our analyses, general trends of and variations among families.

Insert table 1 about here

Two of these items represent parent-child directed activities ("situation control" and "transmission of rules"), the third is a child-parent directed item "affirmation of position", in which children try to gain a position of their own in the family, often against the intention of their parents.

General trends of family socialization. Histograms describing variations in the parental-child dyadic frequencies of the two socialization items "situation control" and "transmission of rules" display similar trajectories for both items with a general increase of frequencies during the first 12 to 16 months followed by a decrease thereafter.

Insert figure 1 about here

Binomial tests (indicated at bottom line of figure) comparing parental activities toward both children show that parent-child directed socialization is significantly stronger for the first child during the first year, but that this difference disappears during the child's second year. Under a statistical perspective, the frequencies representing the sums of parental activities follow a rather systematic course: In a log-linear analysis (Fienberg, 1980, Agresti, 1984, Von Eye, Kreppner, Wessels, 1989), they could be completely described and modelled by only two functions: A linear increase as one trend, and a quadratic function as the other.

Insert table 2 about here

This points to an intensification of parental control and rule transmission during the first half of the time period under study followed by a relief in the second half. This course may mirror an adaptation process in family socialization: By the end of the two year period, a higher level of control and rule transmission has been established compared to the initial level immediately after the arrival of the new child. The time-specific frequencies for the different parent-child dyads reveal that the amount of socialization targeted toward the first child is increased before both parents begin to raise their amounts for the second child. The father's role in contributing to family socialization for the first child is another interesting detail: In general, fathers' frequencies for both children are smaller than mothers'. However, during the first three time periods under study (6/8 weeks, 4/5 months, and 8/9 months), the fathers' socialization activities for the first children are comparably high. Furthermore, as binomial tests show, parents tend to equalize their attention to both children at the end of the two year period.

The analysis of frequencies representing the third selected item, both

children's "affirmation of position", yielded a consistent majority in the first child's affirmation over time with only one exception during the 20/21 months segment, in which, according to binomial tests, both children did not differ significantly.

Insert figure 2 about here

Another interesting detail is revealed when the two children's parent-directed activities are considered separately: During the critical phase of change, between the 4/5 months and the 16/17 months segments of the two year period, the first child is equally affirming his or her position against both parents (no significant differences in frequencies according to binomial test). In addition, a steep increase at the 8/9 month segment is obvious, the time period in which the second child begins to crawl and tends to disturb the first child's activities by being more mobile than during the first eight months. The second child's activities directed towards both parents vary unsystematically: The overall frequencies are generally smaller and can only be interpreted as an increase of affirmative behavior after the first year, with a father/mother equality at the 12/13 months and 21/22 months segment.

These general trends illuminate the course of socialization patterns inside all families. As these histograms and their relation-specific frequencies show, an increase of socialization activities during a "normal" transition period points to potential crises and a new orientation concerning the management of extant relationships. In the following analyses, the focus will be on the exploration of variations among families.

Variations among families in three socialization items. A series of cluster analyses including the sum of three difference scores: Differences between mothers' and fathers' socialization activities toward both children in each

family, as well as difference scores between mothers' "situation control" and second children's "affirmation of position." The analysis yielded a clear picture of two distinct family groups, subdividing a minority group of five families from the majority of the other eleven families in the sample.

Insert figure 3 about here

Variations among families were further investigated: First, the difference scores of the three items used in the cluster analysis were included in a rank order correlation analysis with the parents' educational and social background (SES) and the second child's mean verbal intelligence score at age 5 and 7 (VIQ) as an indicator of the children's achievement in social skills. Intelligence was measured by a German version of the Wechsler Intelligence Test for Preschoolers, the HAWIWA (Schuck & Eggert, 1976) and a parallel test, the AID (Kubinger & Wurst, 1985). The table of correlations (Spearman rho's) indicates that no correlation exists between the parents' SES scores and the three difference scores. However, two of the three difference scores show a moderate but significant correlation with the second children's verbal IQ scores. That is, high differences between parents are associated with children's low verbal IQ scores. Since the correlation between SES and VIQ is also considerably high, one may draw the conclusion that correlations between parents' early socialization difference scores and children's verbal IQ scores identify a segment of contextual influence that is different from segments covarying with the families' SES scores.

Insert table 3 about here

The second step for analyzing family differences in more detail consisted of a separate comparison encompassing the five families constituting the minority group in the discriminant analysis with three other groups of five families, each sampled randomly from the majority group. The three subgroups



of five randomly assembled from the majority group were compared among each other, and, in addition, each of these subgroups was compared with the minority group. Results of these comparisons (binomial tests) are presented in a condensed format in table 4.

Insert table 4 about here

Differences are indicated only in those cases in which the minority group showed significant deviations from all three other groups and in which the majority groups had no significant differences among each other. As a general result, the differences are mostly occurring during the second year and tend to emphasize the mother-second child directed socialization activities.

Interestingly, mother-first child socialization differences occur during the first months and during the critical period between 8/9 months and 20/21 months, with fathers involved in the 16/17 months period. This appears to be a pattern occurring in socialization activities directed toward both children. The children's "affirmation of position" is different between minority and majority families only during the 8/9 months and 12/13 months period.

In order to obtain an even more detailed picture of these differences, trajectories of mothers' and fathers' socialization concerning both children were compared with each other: The minority group and a random sample of the majority group were analyzed as to variations in parental socialization over time (see figures 4 and 5).

Insert figures 4 and 5 about here

The comparison portrays two major differences: First, mothers' frequencies of "situation control" and "transmission of rules" tend to be generally higher in the minority group than in the majority subgroup; second, maternal and paternal frequencies are more similar in the majority subgroup than in

the minority group; third, differences in the minority group are most salient during the middle periods, that is, between 8/9 months and 20/21 months; and fourth, fathers' socialization frequencies directed toward their first children are higher in the majority than in the minority group and points to the attempt to compensate for the first children the mothers' intense care for the new children during the first months.

This comparison elucidates a qualitative difference of family socialization between the two groups: Parental cooperation and coordination in the majority subgroup is contrasted by an obvious pattern of disparity and discoordination in parental socialization in the minority group at specific time periods. A comparison of the mother-child2 "situation control" and the child2-mother "affirmation of position" shows a similar picture: Whereas a similar course is displayed in the majority group comparison pointing to a mutuality in the process of adaptation and social development during the integration and expansion period, the minority group's trajectories stand out for their dissimilarity and mismatch or disharmony between mother and child.

Insert figure 6 about here

As all three figures show, differences are both highly time-specific and constellation-specific. This may have major implications for the children's individual social development in the two different family contexts, the majority and the minority group: Drawing from the notion of an "internal working model" these time- and constellation-specific differences might have a considerable impact on the formation of social strategies and social behaviors in the individual children.

### Conclusions and Discussion

In sum, results of this exploratory study can be summarized by three points:

(1) Time-specific changes in dyadic socialization patterns occur after the arrival of a new child and expand over a two year period; they point to the families' attempt to establish a new balance in an expanded system. A combination of a linear with a quadratic trend supports the idea that, after an intensification of socialization, a new level of interaction is reached indicating a general alteration in the families' relational network and an integration of the new member.

(2) Socialization activities within families vary according to intensity and time-specificity. Parents differ in their expectations about children's abilities to understand rules at specific times. This may contribute to scheduling conflicts where parents' expectations of developmental skills and the children's actual skills and needs do not match.

(3) Families vary according to mothers' and fathers' coordination and cooperation in socialization activities. Whereas a remarkable similarity in parental socialization trajectories and a compensatory function of fathers as to participation in socializing the first child prevails in the majority group, discoordination seems to be obvious when trajectories from the minority group are compared to one another.

As a consequence of this exploratory research one can draw the conclusion that most parents coordinate their socialization activities and cooperate in their common venture. Deviations from a parental cooperative pattern may imply some specific and perhaps detrimental experiences for the child.

Deviating patterns in family socialization such as high maternal control, low developmental sensitivity, and a low degree of parental cooperation and coordination accompanied by a general disregard for the individual child's developmental rhythm may lead to an inner representation for social relationships fostering maladaptation that may generate symptoms such as

learned helplessness, identity problems, or low self-esteem in later stages of development.

Nearly twenty years ago, a harmony/disharmony paradigm was introduced by Diana Baumrind (1971 a, b) for clarifying a parenting style characterized as a kind of mystery, where the parents do not openly instruct or even push their children, but nonetheless children are functioning well. It appears as if the children in these families already "knew" what their parents wanted them to do. Today, after the family context has been the target of intensive studies with a far more sophisticated methodology, this phenomenon still needs explication.

Results found in this study are in line with results in other studies featuring a family-context orientation: For example, a correlation has been found between parental competence and spousal support in parenting (Dickie & Carnahan, 1980; Dickie & Matheson, 1984); and fathers' engagement with their infants has been found to be positively related to marital engagement in the family (Belsky, 1984). More specifically, the results found in the present study can also be seen as a first step in the attempt to amass more details regarding the family developmental aspects which are present and influential in an infant's social context during sensitive periods of his or her individual development.

As a consequence of this small and exploratory study, I would like to make a plea for more extended longitudinal projects comprising all members in a family in order to gain more detailed information about the processes of adaptation or maladaptation in the different dyadic relationships. In this way, the onset of both adaptive and maladaptive socialization patterns may be studied by following up over a longer period of time different modes that are established to cope with a new child's arrival and development. Long term family research in different stages of children's individual

development maximizes the chance to bring to the fore the most crucial events in the individual-family interaction that are assumed to impinge on the inner representation of relationships that are "carried forward" (Sroufe & Fleeson, 1986) in later individual social development.

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Table 1  
Log linear models for all socialization items (structural and pragmatic aspect)  
Factors are Family (F), Initiative (I), Target (T), and Age period (A)

Socialization items	Models	DF	Chisq	p
<b>Structural aspect</b>				
Situation Control	[F], [A], [IT]	1311	1462.7	.002
	[F], [AI], [IT]	1293	1410.6	.012
	[F], [AT], [IT]	1293	1376.7	.052
	[FA],[FI], [IT]	1176	1177.4	.483
Continuation of Contact	[FA], [AIT], [FIT]	990	1261.2	.000
	[FAT],[FIT], [AIT]	720	854.1	.000
	[FAT],[FIT], [FAI]	486	486.5	.409
	[FAT],[FIT], [FAI],[AIT]	450	426.4	.762
Integrative Activity	[AT], [FIT],[FAI]	750	876.6	.000
	[FT], [AIT],[FAI]	795	991.8	.000
	[IT], [FAT],[FAI]	555	597.7	.102
	[FIT],[FAT],[FAI]	480	457.6	.762
Affirmation of Position	[F], [A]	1322	1661.0	.000
	[F], [T]	1325	1591.4	.000
	[F], [I]	1325	1322.4	.515
	[F], [I], [A]	1319	1274.5	.806
<b>Pragmatic aspect</b>				
Caretaking Activity	[F], [AI], [IT]	1293	1397.3	.022
	[F], [AI], [IT], [AT]	1275	1366.7	.037
	[FA],[AI], [IT]	1203	1244.5	.198
	[FI],[AI], [IT]	1248	1277.0	.278
Offering New Activities	[FT], [FAI], [AIT]	795	1010.3	.000
	[AT], [FAI], [FIT]	750	904.1	.000
	[FAT],[FAI], [IT]	555	577.3	.248
	[FAT],[FAI], [AIT]	525	550.8	.210
Transmission of Rules	[F], [T], [I], [A]	1316	1417.5	.026
	[F], [T],[AI]	1298	1398.0	.027
	[F], [I],[AT]	1298	1302.0	.464
	[F], [A],[IT]	1311	1282.9	.706
Mirroring and Taking Up	[FIT], [FAI]	768	939.7	.000
	[FIT], [FAI], [AT]	750	896.8	.000
	[FIT], [FAI], [AIT]	720	825.0	.004
	[FIT], [FAI], [FAT]	480	436.5	.923

Table 2

Log-linear analyses of items "situation Control" and "Transmission of Rules" by using a design matrix defining a linear and a quadratic trend for the frequencies

A: Item: "Situation Control"

Age Period	Design Matrix:		Frequencies:		Standardized Residual
	Linear Trend	Quadratic Trend	Observed Freq	Expected Freq	
1	1	-5	123	123.40	-0.036
2	2	0	159	160.99	-0.157
3	3	3	199	193.26	0.413
4	4	4	208	213.50	-0.376
5	5	3	225	217.04	0.540
6	6	0	193	203.03	-0.704
7	7	-5	179	174.78	0.319
Goodness of Fit Tests:				Gamma	SE Ga/SE
LR chi square = 1.231				0.042	0.008 4.943**
Pearson chi square = 1.228				0.058	0.015 3.870**
Degrees of Freedom = 4					

B: Item "Transmission of rules"

Age Period	Design Matrix:		Frequencies:		Standardized Residual
	Linear Trend	Quadratic Trend	Observed Freq	Expected Freq	
1	1	-5	140	132.58	0.644
2	2	0	158	166.53	-0.661
3	3	3	179	195.70	-1.194
4	4	4	236	215.16	1.421
5	5	3	233	221.31	0.786
6	6	0	192	212.97	-1.437
7	7	-5	198	191.75	0.451
Goodness of Fit Tests:				Gamma	SE Ga/SE
LR chi square = 7.222				0.033	0.008 4.071**
Pearson chi square = 7.183				0.061	0.015 4.231**
Degrees of Freedom = 4					

Table 3

Rank Correlations (Spearman)  
N = 15

Within Family Differences of Selected Variables with VIQ and SES					
	VIQ	SES	DSCMF	DTRMF	DSAPCM
VIQ					
SES	.616*				
DSCMF	-.460*	-.159			
DTRMF	-.466*	-.104	.795**		
DSAPCM	-.402	-.101	.885**	.769**	

\*  $p < .05$

\*\*  $p < .01$

VIQ : Verbal IQ Scores of Second Children

SES : Social Background of Parents

DSCMF : Difference Scores Situation Control Mother-Child2 vs.  
Father-Child2

DTRMF : Difference Scores Transmission of Rules Mother-Child2 vs.  
Father-Child2

DSAPCM : Difference Scores Situation Control Mother-Child2 vs.  
Affirmation of Position Child2-Mother

Table 4

TIME SPECIFIC DIFFERENCES: FAMILY CONSTELLATIONS WHICH DIFFER  
BETWEEN THE EXTREME GROUP AND ALL OTHER CONTROL GROUPS WITH NO  
DIFFERENCES AMONG CONTROL GROUPS

	Age period:						
	1	2	3	4	5	6	7
Situation Control:	♠			♥	♥	♠♥	♥
Transmission of rules	♠		♠	♥	Φπ	♥	
Affirmation of Position:			♦	♦			

Legend:  
Directions and  
Constellations:

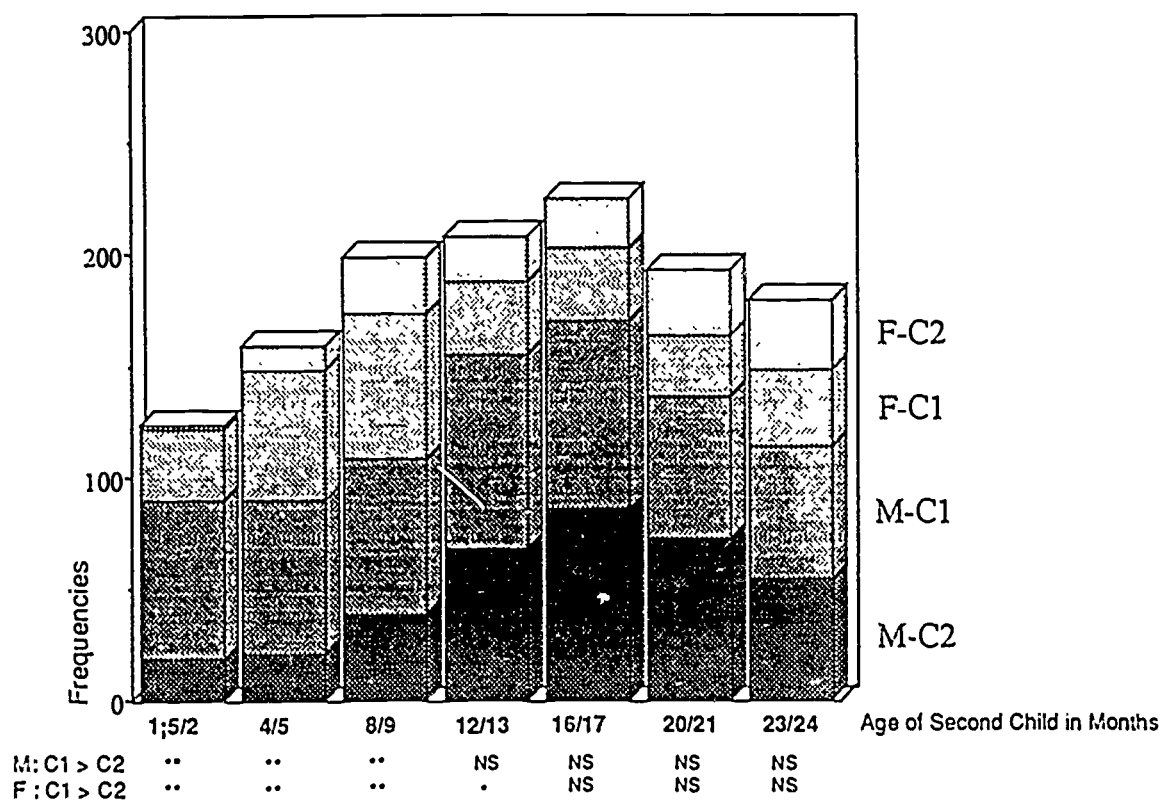
♠ : M-C1  
♥ : M-C2

Φ : F-C1  
π : F-C2

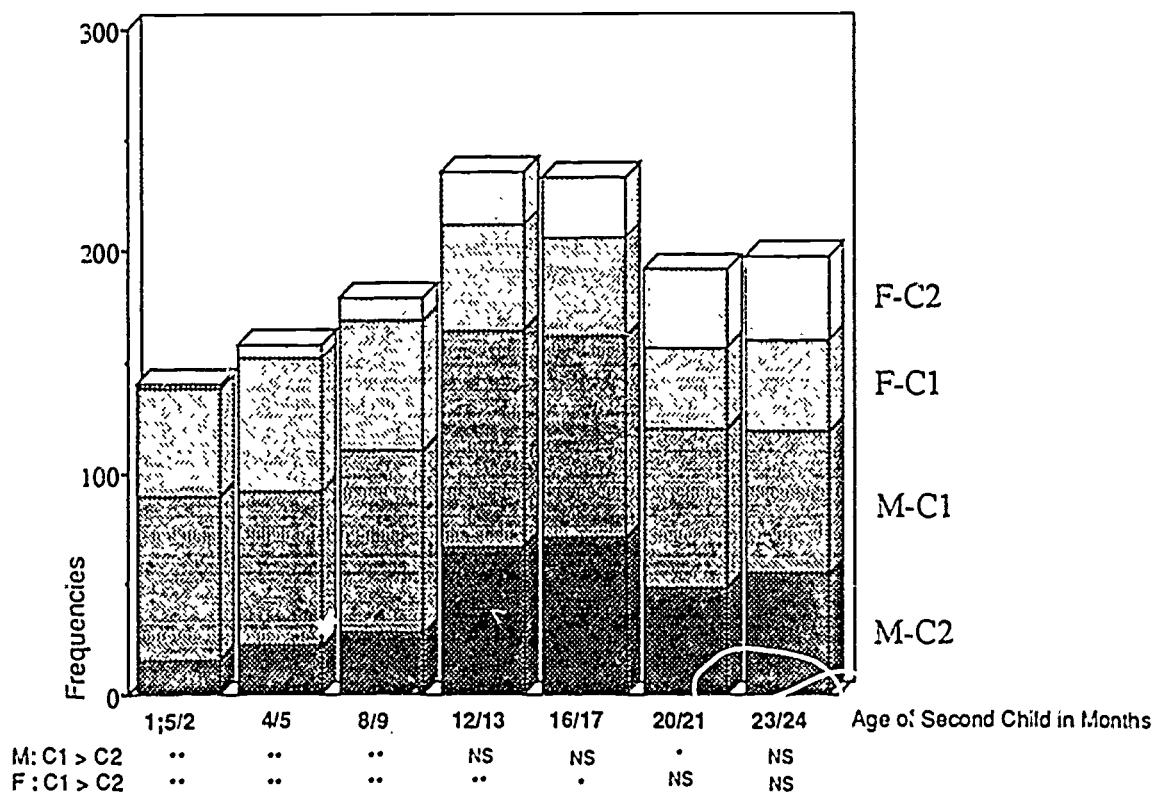
♦ : C2-M

Figure 1

Situation Control of Mother and Father to First and Second Child



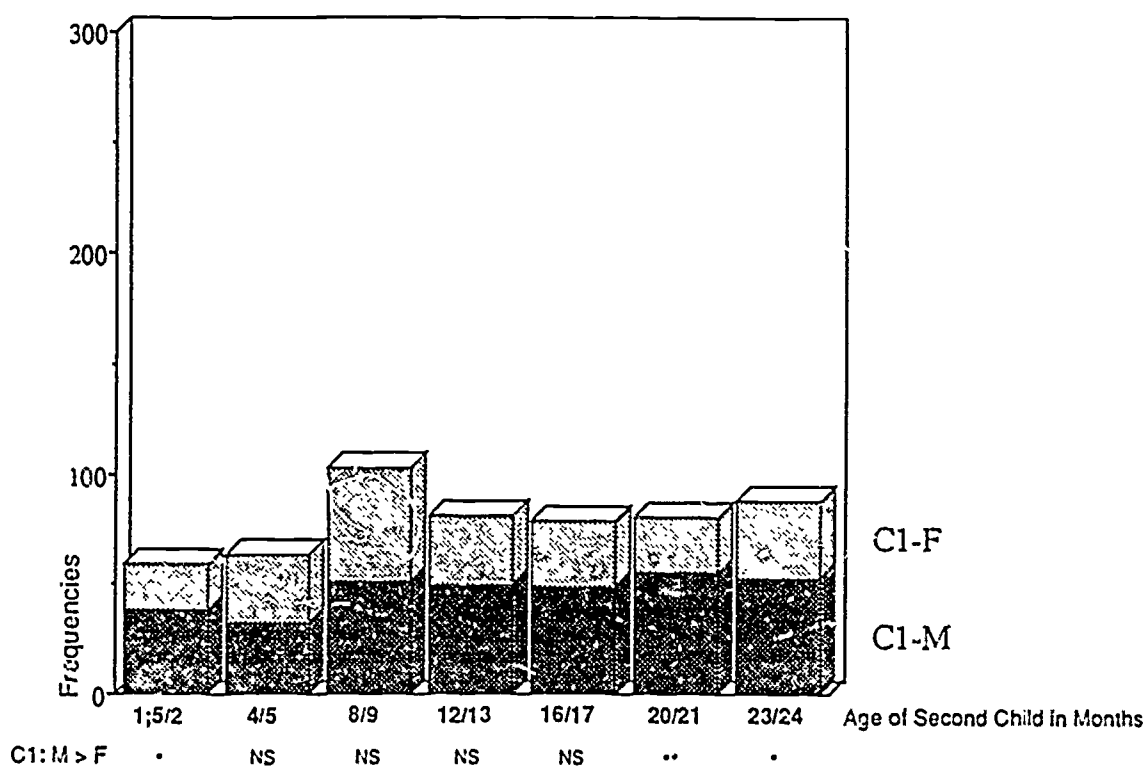
Transmission of Rules of Mother and Father to First and Second Child



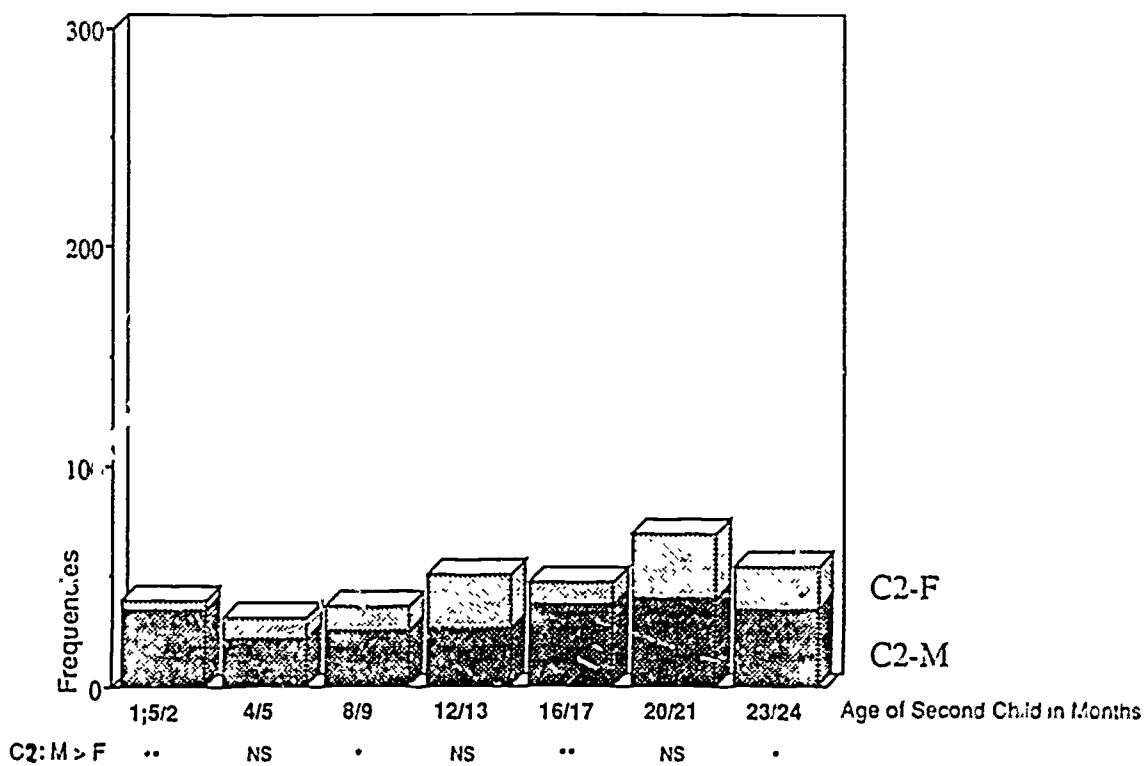
.  $p \leq 0.05$  (Binomial Distribution)  
 \*\*  $p \leq 0.01$

Figure 2

Affirmation of Postion of First Child to Mother and Father



Affirmation of Postion of Second Child to Mother and Father



\*  $p \leq 0.05$  (Binomial Distribution)  
 \*\*  $p \leq 0.01$

Figure 3

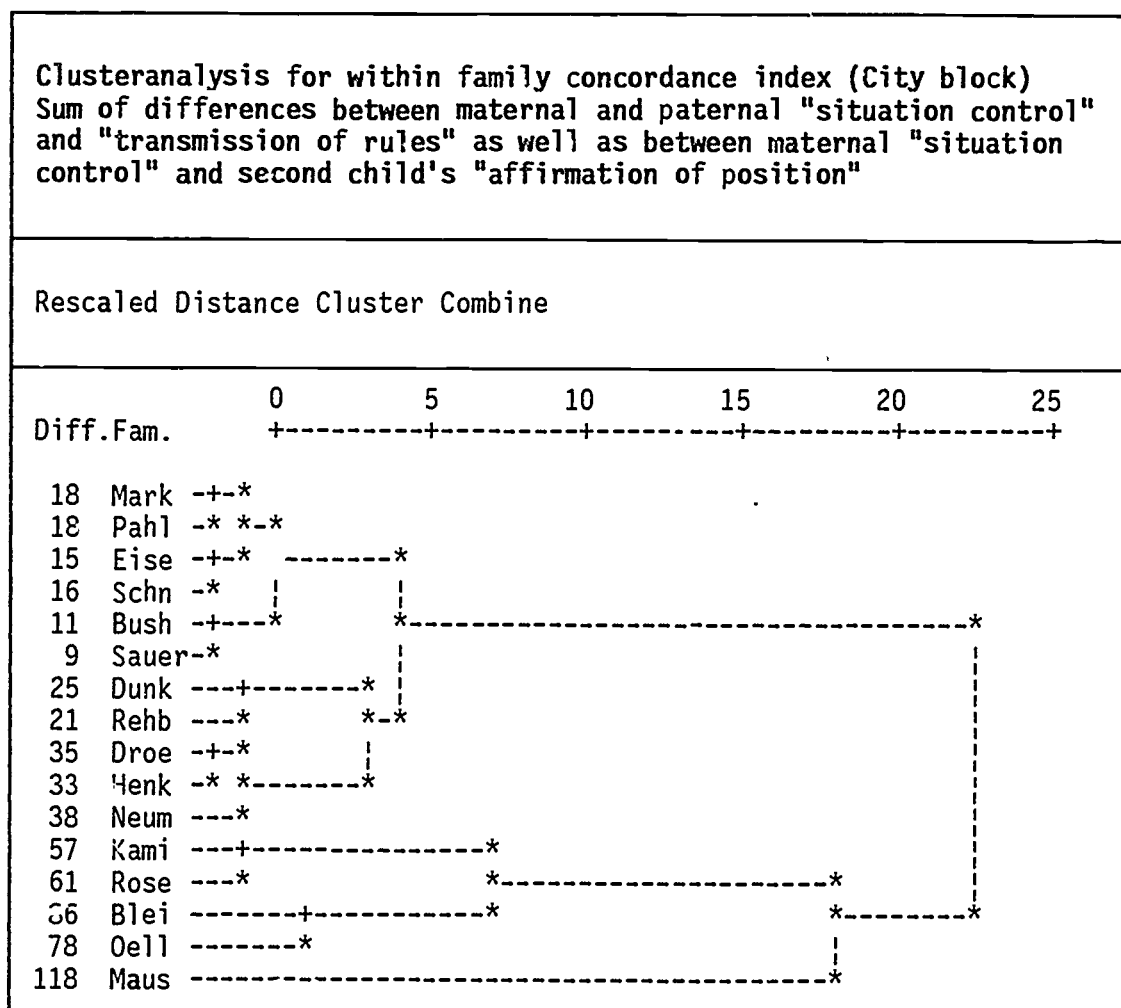
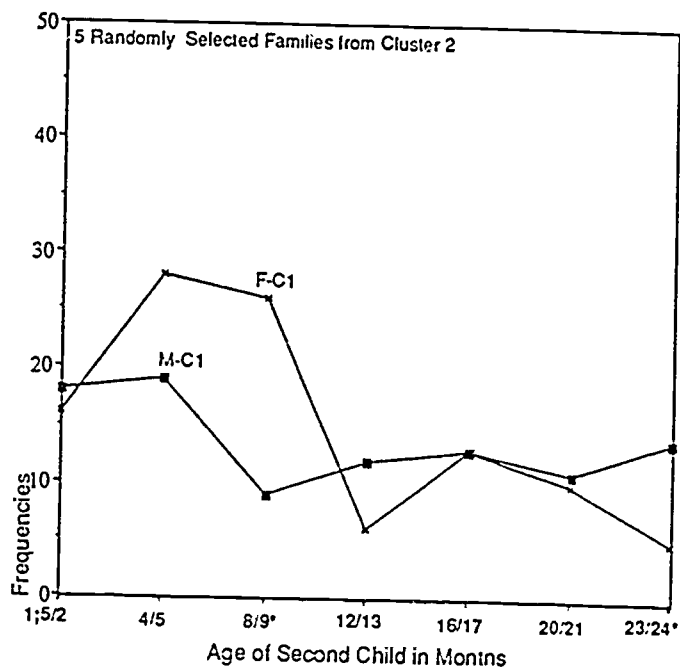
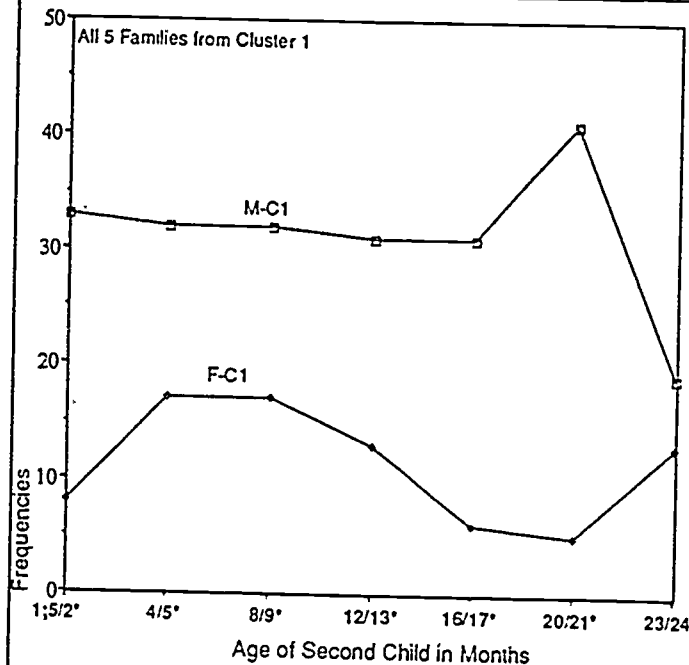


Figure 4

# Parental Cooperation in Two Families Clusters over Time

## Mothers' and Fathers' Situation Control to First Child



## Mothers' and Fathers' Situation Control to Second Child

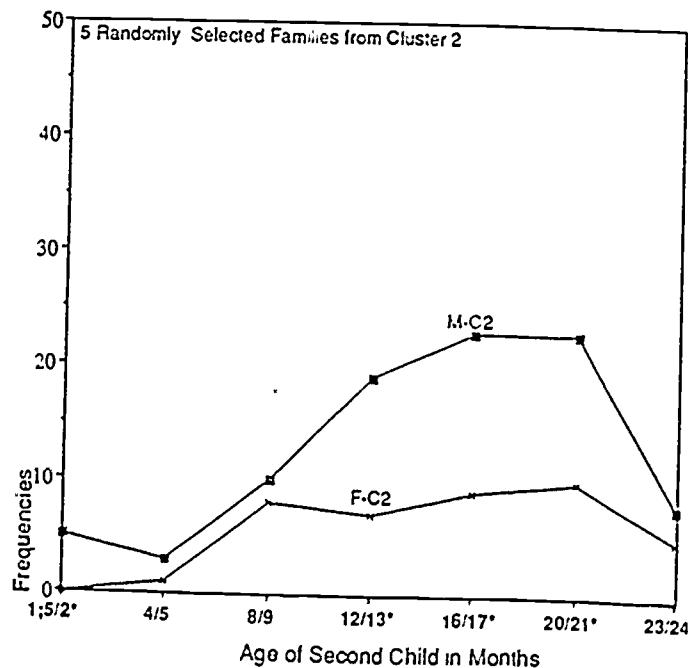
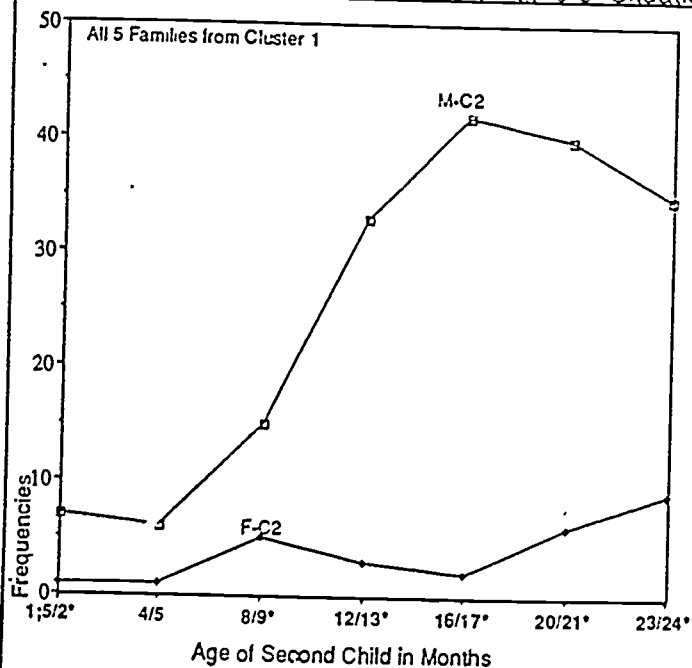
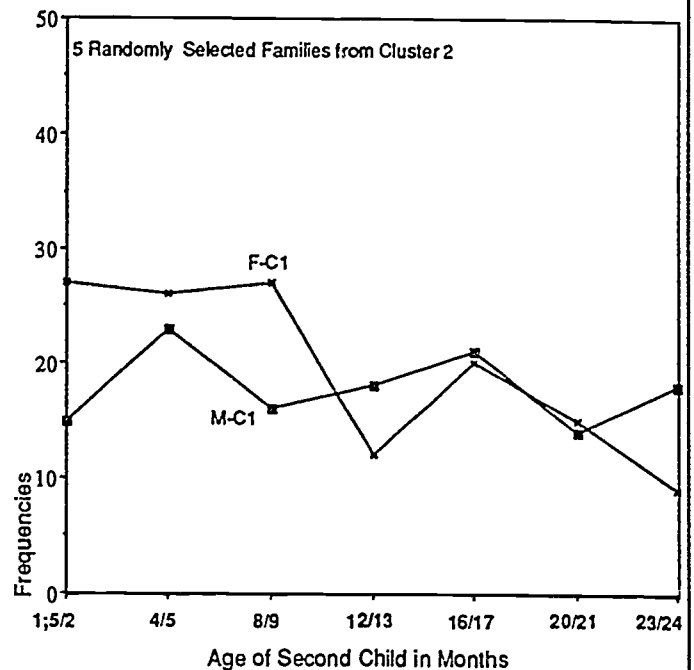
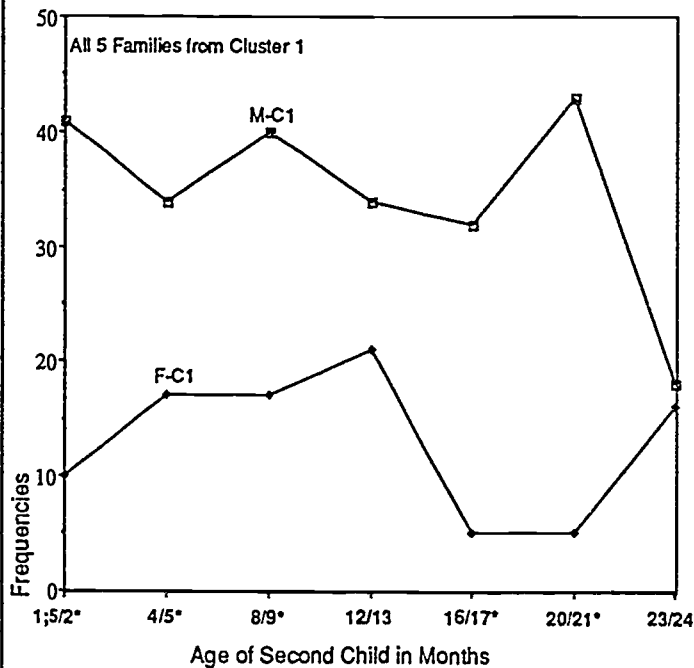




Figure 5

# Parental Cooperation in Two Families Clusters over Time

## Mothers' and Fathers' Transmission of Rules to First Child



## Mothers' and Fathers' Transmission of Rules to Second Child

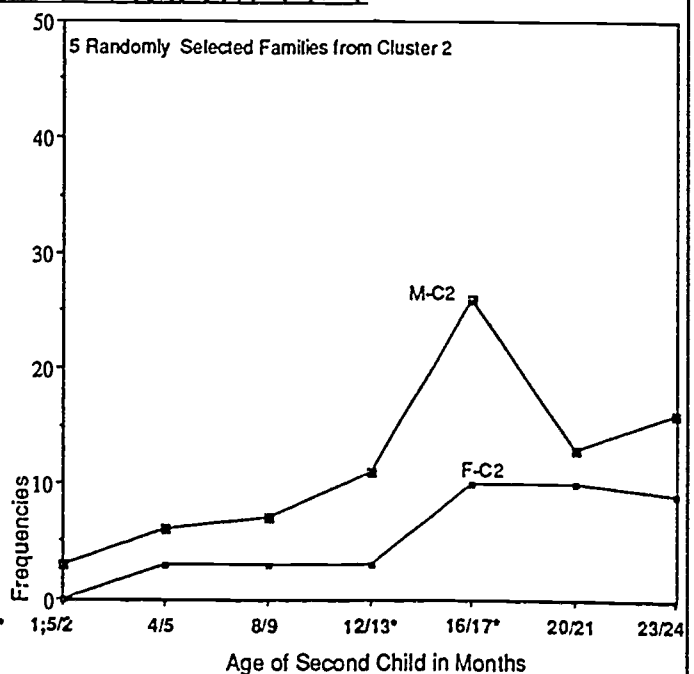
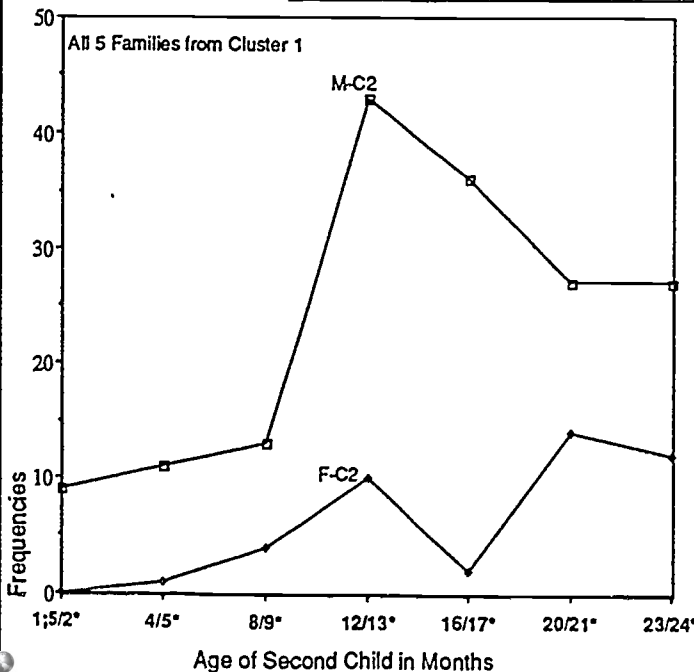
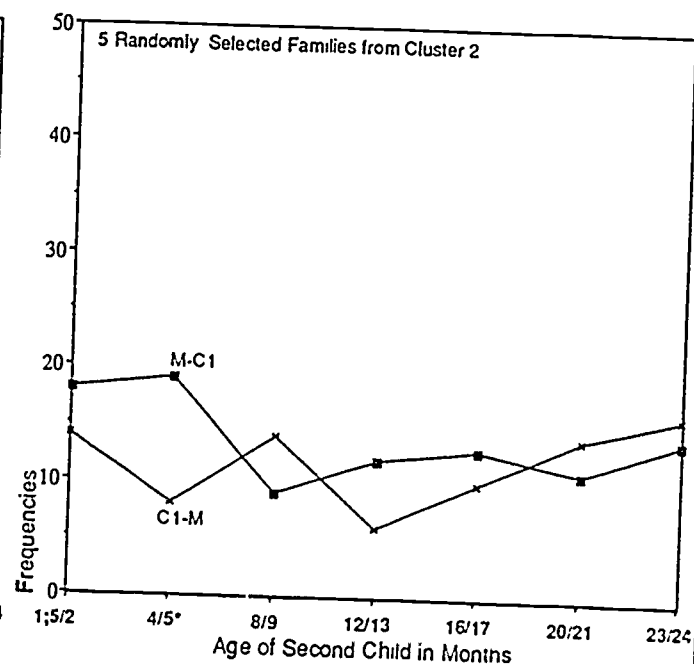
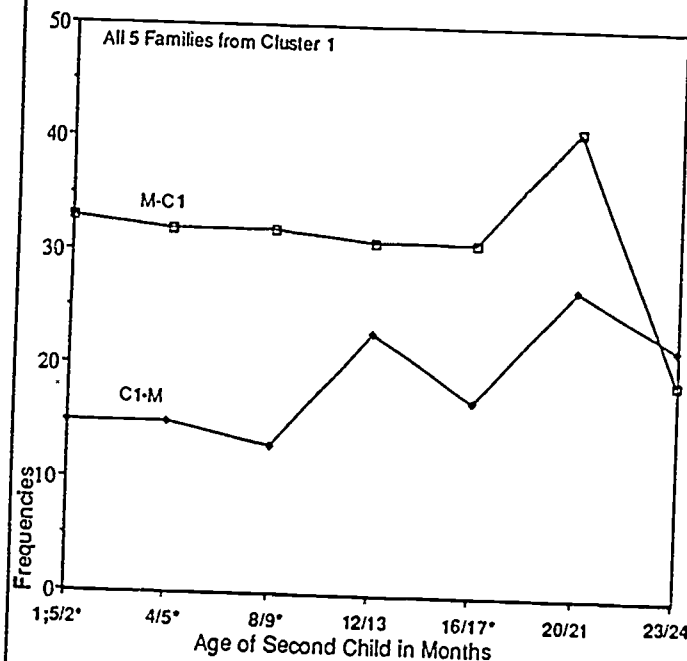


Figure 6

# Parental Cooperation in Two Families Clusters over Time

## Situation Control of Mother to First Child and Affirmation of Position of First Child to Mother



## Situation Control of Mother to Second Child and Affirmation of Position of Second Child to Mother

